

## Chapter Eight

# CONSULTANT DEVELOPED AND/OR DESIGNED PROJECTS

BUREAU OF DESIGN AND ENVIRONMENT MANUAL



**Chapter Eight**  
**CONSULTANT DEVELOPED AND/OR DESIGNED PROJECTS**

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## Chapter Eight

# CONSULTANT DEVELOPED AND/OR DESIGNED PROJECTS

Chapter 8 documents the Department's policies and procedures to use when processing consultant developed and/or designed projects.

### 8-1 DEFINITIONS AND PROCEDURES

#### 8-1.01 Definitions

The following definitions apply to Chapter 8:

1. Additional Services. Any service or action required of the Consultant not identified in the Agreement or any Supplemental Agreement.
2. Agreement/Contract. The legal instrument or negotiated contract defining the obligations and considerations of the signatory parties. The term "Agreement" or "Contract" includes all Supplemental Agreements.
3. Bureau Chief. The Department's officer named in the Agreement who shall approve any change or additional work authorization.
4. Consultant. The firm providing professional services as a party to the Agreement.
5. Department or IDOT. The Department of Transportation of the State of Illinois.
6. Department or IDOT Internet Site. <http://www.dot.il.gov>.
7. Director. The director of the division or office of the Department who is in charge of the services under the Agreement.
8. Fixed Fee. A specified dollar amount to cover profit and certain business expenses based on the assigned complexity factor of the project.
9. Liaison Managers. The duly authorized representatives of the Department and the Consultant charged with day-to-day administration of the terms of the Agreement.
10. Pregualification. A condition that shall be met before consideration is given.
11. Project Schedule. A comprehensive description of all significant services required of the Consultant and of all actions required of the Department and approving parties by the obligations of the Agreement, together with the durations and/or dates for performing these services and actions.

12. Regional Engineer. The engineer in charge of the region that has jurisdiction over the services.
13. Scope of Services (Advertised). All services and actions required of the Consultant as advertised in the Professional Transportation Bulletin.
14. Scope of Services (Negotiated). All services and actions required of the Consultant by the obligations of the Agreement.
15. Subconsultant. Any independent professional firm, person, or organization who, with the approval of the Department, performs a part of the services for the Consultant.
16. Supplemental Agreement. An additional agreement modifying the original signed Agreement.
17. Service. All engineering and related services and the furnishing of all equipment, supplies, and materials required to achieve the broad purpose and general objectives of the Agreement.

#### **8-1.02    Acronyms**

The following are common terms used with consultant developed and/or designed projects:

1. AA. Affirmative Action.
2. A/E. Architectural-Engineering.
3. AFC. Annual Fee Capacity.
4. AU. Agreements Unit.
5. BBFM. Bureau of Budget and Fiscal Management.
6. BoBS. Bureau of Business Services.
7. BDE. Bureau of Design and Environment.
8. CA. Certification Acceptance.
9. CAAS. Consultant Agreement Approval Sheet.
10. CECS. Cost Estimate of Consultant Services.
11. CEUF. Consultant's Employee Utilization Form.
12. CFR. Code of Federal Regulations.
13. COD. Contract Obligation Document.
14. CPFF. Cost Plus Fixed Fee.
15. CSC. Consultant Selection Committee.
16. CU. Consultant Unit.
17. DLM. Direct Labor Multiple.
18. EEO. Equal Employment Opportunity.
19. FHWA. Federal Highway Administration.
20. OMB. Office of Management and Budget.
21. OP&P. Office of Planning and Programming.
22. QQC. Office of Quality Compliance and Review
23. PPB. Procurement Policy Board.



24. PSU. Project Support Unit.
25. PTB. Professional Transportation Bulletin.
26. QA/QC. Quality Assurance/Quality Control.
27. SAPCS. Standard Agreement Provisions for Consultant Services.
28. SEFC. Statement of Experience and Financial Condition.
29. TS&L. Type, Size, and Location Plan.



## 8-2 PREQUALIFICATION AND SELECTION

### 8-2.01 Use of Consulting Engineering Firms

Extensive engineering activity is required to complete the Transportation Improvement Program (e.g., performing necessary studies, preparing construction plans and specifications for advertising construction projects, inspecting construction activities). To accomplish the Program without appreciably increasing the number of IDOT personnel or performing services for which the Department does not have specialized expertise, the Department uses outside consulting engineering firms.

### 8-2.02 Prequalification of Consultants

All Architectural-Engineering (A/E) Consultants desiring to provide services to the Department, whether as Prime or Subconsultant, are prequalified before any consideration is given to their respective Statements of Interest (see Section 8-2.04(a)). Prequalification must be obtained no later than the final date established for the receipt of Statements of Interest for any particular work. However, a Consultant that is prequalified for one or more types of work on the final date established for the receipt of Statements of Interest may submit supplemental information as necessary to establish prequalification for additional types of work. This supplemental information must be received no later than three working days prior to the Consultant Selection Committee meeting (see Section 8-2.05(a)). The following items discuss the prequalification procedures:

1. SEFC Filing. A properly completed Statement of Experience and Financial Condition (SEFC) form with required attachments must be filed with the Division of Highways, Bureau of Design and Environment, Consultant Unit (CU); see IDOT's internet site. Because of varying workloads, the Department cannot guarantee that a SEFC will be processed by a particular date. Therefore, any Consultant desiring prequalification for a particular project should file its SEFC as early as possible.
2. Prequalification Notification. The BDE analyzes the SEFC and attachments and notifies the Consultant of the size and types of services it is qualified to perform. When this notice is given, the Consultant is prequalified. The size of service that a Consultant is qualified to perform is based on its annual fee capacity.
3. Annual Fee Capacity. A Consultant's annual fee capacity is an evaluation of its technical and professional staff's ability to generate an annual volume of work. To estimate the maximum annual fee capacity of a Consultant to perform transportation or architectural work, the larger of the fees computed by the following two methods is used:
  - the fee produced by multiplying the total number of technical staff by \$200,000, or
  - the fee produced by multiplying the total number of professional staff by \$800,000.

To determine the annual fee capacity of Consultants performing aerial mapping services only, the figure of \$700,000 per plotter/operator is considered appropriate or the fee produced by multiplying the total number of technical staff by \$200,000. The following presents general application guidelines:

- a. Determining Performance Ability. To determine a Consultant's ability to perform a project, the total uncompleted volume of transportation-related work is subtracted from the annual fee capacity, as determined above, to arrive at an unobligated fee capacity. Appropriate consideration is given to instances where a Consultant's uncompleted work is expected to extend over a period of more than one year. To be eligible for consideration, such unobligated fee capacity shall equal or exceed the estimated annual fee of the project for which the Consultant is seeking to perform.
  - b. Determining Staff Sufficiency. To determine whether a Consultant is sufficiently staffed to do a construction supervision project, the estimated overall fee for the project is reduced by one-half for the comparison to account for the Consultant possibly adding to its staff for this type of work.
4. Period of Effectiveness. The prequalification notice provided in Item 2 above will be effective, unless otherwise changed by the Department, from the time notice is given until six months after the end of the Consultant's current fiscal year. At that time, the prequalification automatically expires and the Consultant's Statement of Interest cannot be considered until prequalification is re-established. To avoid expiration of its prequalification, a Consultant updates and submits the Corporate and Financial Information section of the SEFC as early as practical after the end of each of their fiscal years. In addition, Consultants submit the remainder of the SEFC (i.e., the Experience and Staffing Information section) every three years. Firms seeking the year their firm's entire SEFC is due, should consult either the PTB or the firm's last prequalification letter.
  5. Changes within the Consulting Firm. Each Consultant notifies the Department within 15 working days of key personnel changes that would cause the Consultant to lose its prequalification in any category.
  6. Evaluation and Prequalification Status. A Consultant may be removed from the list of prequalified firms for a particular type of service if a final evaluation of its work for the Department indicates that this service was determined to be Poor or Substandard on a project. For specific information on consultant evaluations, see Section 8-4.05.
  7. Prequalification Inquiries. All inquiries regarding the procedures or information required for prequalification are referred to the BDE Preliminary Engineering Section.
  8. Confidentiality of Information. The Department will maintain and treat all information required under this section as confidential for use only by the Department or other governmental agency entitled by law or agreement.

9. Categories of Service. The Department prequalifies A/E Consultants in the categories of service. A description of the work involved in the areas of specialization and the minimum requirements are available on IDOT's internet site "Doing Business, Consultant Services."
10. Professional Licensing and Registration. If the minimum requirements dictate Illinois licensing or registration, that individual shall be a full-time employee who has acted in a leadership role on relevant projects. Consultants, committing or pledging individuals, or persons on retainer cannot be used to meet the minimum requirements for prequalification, except as noted for Environmental Reports. See "Description and Minimum Requirements for Prequalification" on IDOT's internet site. The experience of these licensed or registered individuals shall be relevant to the category of transportation work and the work shall have been performed within the last five years. For some specific categories, the last 7 or 10 years of experience will be considered. See IDOT's internet site "Description and Minimum Requirements for Prequalification."
11. Support Staff Experience and Training. Consultants also shall have a support staff of engineers and/or technicians with relevant experience or training. The lack of relevant experience or training of the support staff may result in denial of prequalification.
12. Required Documentation. Consultants requesting prequalification in any area of specialization will be required to send documentation of their previous work outlining:
  - firm and key employee pertinent experience, and
  - capabilities of current staff.

The Department may, at its discretion, make on-site visits to the Consultant's office to verify the information set forth in the SEFC document submitted.

### **8-2.03 Request for Consultant Services**

Use the following general guidelines when requesting consultant services:

1. Project Selection Proceedings. The Consultant Unit (CU) requests divisions, districts, and bureaus submit candidate projects approximately four weeks prior to publishing a Professional Transportation Bulletin (PTB).
2. Preparation of Form A/A-1. Use Form A/A-1, see IDOT Forms Master List, to justify requests for A/E firms to perform engineering services. Use the following guidelines when preparing Form A/A-1:
  - a. Transmittal Memorandum. Prepare one transmittal memorandum to accompany all A/A-1 forms that lists, in priority order, all projects being submitted and indicate recommendations for combining two or more program line items into one consultant developed and/or designed project.

- b. Cost Estimate. A detailed cost estimate (not required for work order projects) is prepared by the submitting district or bureau ensuring adequate funds are programmed for the advertised project. Where insufficient funds are programmed, the district or bureau works with OP&P to secure the necessary funds.
  - c. Proposed Project Advertisements. In conjunction with each Form A/A-1, the requesting district or bureau submits a proposed advertisement for the PTB. The project can be advertised after approval by the division or office director. The description is prepared in the PTB format and sent to the CU for review, coordination, final preparation, and issuance. Use the PTB guidelines (see Consultant Share-point internet site) and previous advertisements when preparing project advertisements.
  - d. Urgent Consultant Need. If a requesting agency determines that the selection of a Consultant is urgent and special advertisement is required, furnish justification for this action to BDE. BDE will compose a memo requesting concurrence from the Secretary of Transportation from the Director of Highways to either hold a special selection or to do a Secretary Selection according to the appropriate laws and rules.
3. Dissemination of Materials. After all divisions and districts have submitted Forms A/A-1 and advertisements to the CU, the information is distributed to the following individuals for comment:
  - Deputy Director, Assistant Chief Engineer;
  - all affected Division of Highway bureau chiefs;
  - Director of the Office of Planning and Programming;
  - Bureau Chief of Statewide Program Planning; and
  - Section Chief of Program Management.
4. PTB Advertisement Meeting. Comments on the distributed materials are collected and, when the nature of the comments dictates, are presented along with short project descriptions at the meeting. The outcome of the incorporated comments and/or this meeting is a final list of projects advertised in the next PTB. If any projects are dropped from the list to be advertised, the Director, Regional Engineer, or bureau chief is informed of the reason(s) for not advertising the projects.

#### **8-2.04     Advertisement of Need**

Official notice of the need for architectural or engineering services being procured by the Department is published in an IDOT Professional Transportation Bulletin (PTB). The PTB schedule is available on IDOT's internet site and the Engineering Consultant Share-point site. Each advertisement describes the requirements of the project as they apply to:

- the project's scope of work;

- the time for completion;
- the necessary professional and technical expertise; and
- the required proximity of the Consultant to the district or bureau in charge of the work, if applicable.

A copy of the PTB is available on the Department's internet site.

#### **8-2.04(a) Statements of Interest**

All Consultants desiring to be considered as a Prime Consultant for a project submit a Statement of Interest by the date and to the locations specified in the PTB. The PTB specifies the types of information required in the Statement of Interest. This information includes, but is not confined to the following:

- a staffing plan that designates the key personnel and shows the number and classification of personnel that will be assigned to the project, along with their current office location, and any work that the Consultant proposes to subcontract;
- estimated time requirements for completion using the proposed staff;
- the known work load of the Consultant's transportation staff;
- the existing office where the majority of the work will be performed;
- a completed disclosure form;
- a completed Delinquent Payment, and
- a completed Iran Disclosure.

#### **8-2.04(b) Confirmation of Eligibility**

The Department determines the eligibility of each Consultant that responds to a project advertisement. A Consultant is considered ineligible from the selection process for any of the following reasons:

- the Statement of Interest was not completed and/or not received by the deadline or by the specified parties;
- the firm is not prequalified for the type(s) or volume of services required;
- the firm does not have sufficient expertise or work force for the particular job;
- the firm does not have a sufficient financial rating or accounting system for the type of contract contemplated; or

- the owning Railroad determines that the particular Consultant is unacceptable on projects when the Consultant is retained to prepare construction plans for a facility, which will carry railroad traffic.

Any Consultant determined to be ineligible under this section is notified of such determination and the reason(s) therefore.

#### **8-2.04(c) Preliminary Review and Ranking**

Following the confirmation of each Consultant's eligibility, the director of the requesting division or office, or the director's designated representative(s), reviews each firm's experience data, Statement of Interest, and any evaluations of previous work for the Department. Based upon this review, each candidate firm is ranked in order of apparent ability to perform the work. This review and ranking will take into consideration at least the following factors:

- previous experience in the type(s) of service required;
- the staffing plan and specific expertise of key employees;
- the plan for accomplishing the objectives, if applicable, as stated in the requirements of the PTB;
- the Department's evaluations of prior contractual services with IDOT, if any; and
- comments furnished by the requesting division or office.

Depending upon the type of project and the method of payment, the following factors also may be important in selecting a Consultant:

- the location of the Consultant's office in which the majority of the work on the project will be performed; and
- the Consultant's total overhead rate, as approved in the Department's Prequalification Notice.

The Consultant Selection Committee (CSC) reviews information including the ranking of each Consultant and the additional information described above. The information also indicates those Consultants determined to be a disadvantaged business enterprises in accordance with the Department's eligibility criteria.

The CSC determines the projects that, by their nature and the corresponding qualifications of the proposing minority-owned firms, are suitable for implementing in an applicable affirmative action program. Any unresolved differences between the reviewers will be brought to the attention of the CSC.



All information developed or provided under this section is advisory only and has no binding effect upon the CSC. The Department maintains and treats all such information as confidential for use only by the Department or other governmental agency entitled by law or agreement.

## **8-2.05     Consultant Selection**

### **8-2.05(a)     Consultant Selection Committee**

The Consultant Selection Committee (CSC) consists of the following members:

1.     Chairperson. The Deputy Secretary of Transportation, or his/her designee, serves as member and chairperson of a seven-member CSC (currently the Director of Highways is the designee).
2.     Department Members. Three of the remaining six members of the CSC are from the Department. Specifically, they are:
  - The Director of the requesting division or office, or that director's designee (currently the Director of Finance and Administration is the designee);
  - the Regional Engineer, or designee, or the bureau chief, or designee, from the same division or office, as designated by the director; and
  - the Director of the Office of Planning and Programming, or designee.

In the event that the office requesting the services is the Office of Planning and Programming, the CSC meets and operates as normal except the Director of Planning and Programming has only one vote and the CSC has only six members and six votes.
3.     Public Members. The other three members of the CSC are from the public and have professional experience in transportation or engineering. One is appointed by the Secretary of Transportation and the other two by the Illinois Society of Professional Engineers (ISPE). Each public member is appointed for a term of two years. If a public member does not complete the term, another member is appointed by the Secretary or the ISPE, in accordance with the original appointment, to serve the remainder of the uncompleted term.
4.     Diversity. It is the goal of the Department that membership of the CSC reflects the ethnic and cultural diversity of the population of Illinois. In furtherance of this goal, the Department has a goal that two or more of the members of the CSC be females or minorities. Additionally, the Department has a goal that the CSC membership will reflect the geographic diversity of the population of Illinois.

The CSC will meet when called by its Chairperson. This meeting is usually scheduled approximately 7 to 8 weeks after the Consultant Statement of Interests are due. The selection date is stipulated in the Professional Transportation Bulletin.

To conduct business, the CSC shall have a quorum. A quorum will consist of at least four members; at least one of who is a public member.

Where another governmental body, or bodies, is contributing to the funding of a particular contract, the Department may, at its option, take either of the following two actions:

- Permit such governmental body, or bodies, to provide one or more representatives to serve as member(s) of the CSC with a total of one vote, or such fractional vote as may be prescribed by the Department. In some instances, this option may result in a total CSC membership of more than six and a total number of votes in excess of six, with respect to the affected services.
- Select a number of Consultants, typically three, in the typical manner, except such selection will be with no order of preference; the Department then may permit the governmental body, or bodies, to select one Consultant from that group selected by the CSC.

#### **8-2.05(b) Selection Procedures**

The following procedures are used when selecting the Consultant. Political affiliation of the Consultant shall not be considered during the selection process.

1. Preliminary Vote. CSC members review the rankings for the Consultants, as well as any of the additional information described in Section 8-2.04(c) and, by voice/electronic vote, reduce the number of Consultants under consideration to three, or fewer where fewer than three have submitted acceptable Statements of Interest.
2. Written/Electronic Ballot. First, second, and third choices are determined by a plurality vote of those CSC members in attendance. This second round of voting is by written/electronic ballot. In determining these choices, the CSC gives due consideration to the rankings provided by the reviewers.
3. Policy Against Multiple Awards. Selection of a single Consultant as first choice for more than one project is not made in a single session unless such selection is determined necessary, the reasons therefore are recorded in the CSC's records, and a majority of the committee members approve, by written ballot, such reasons. For purposes of this part, "single session" means and includes one or more meetings necessary for the CSC to make all selections from a single Professional Transportation Bulletin.
4. Identity of Firms. The identity of the second and third choice is maintained and treated by the Department as confidential for use only by the Department or other governmental agency entitled by law or agreement. However, if negotiations fail with the first choice Consultant, the identity of the second choice Consultant then is considered public information. Similarly, if negotiations fail with the second choice Consultant, the identity of the third choice Consultant is considered public information.

5. Notification of Selection. Selected Consultants are notified by telephone or e-mail of the following information:

- PTB and item number of selection;
- date and time of negotiation meeting;
- complexity factor; and
- request for current payroll by employee, classification, hourly rate, raise schedule, and any direct costs for their firm and any proposed Subconsultants.

An announcement of selected Consultants will be e-mailed to all prequalified consultants after all selected firms are notified.



### **8-3 AGREEMENT NEGOTIATION AND PROCESSING**

#### **8-3.01 General**

The director or that director's representative initiates negotiations with the selected Consultant. For district requested projects, the Regional Engineer, or designee, initiates negotiations. If a successful conclusion cannot be obtained, negotiations are formally terminated with that Consultant. Negotiations with the second choice Consultant are then initiated. Similarly, if negotiations fail with the second choice Consultant, negotiations with the third Consultant are initiated. Prior to the second and/or third choice consultant being contacted, the director's concurrence is required.

The term "negotiation" includes all of the steps necessary, following the selection of a Consultant, to arrive at a signed Agreement and to authorize the work. This includes negotiation meetings to reach agreement on:

- scope of work,
- man-hours,
- schedule of completion,
- subconsulted work, and
- non-salary direct costs.

Negotiations also include:

- reaching agreement on the acceptable average payroll rates for the project;
- approving the detailed fee estimate and proposal from the Consultant and obtaining authorization from the Federal Highway Administration when Federal participation is anticipated;
- obtaining signatures to the Agreement; and
- authorizing the work.

#### **8-3.02 Scope**

##### **8-3.02(a) Scope of Services Meeting**

The scope of services meeting is the first step in the process leading to the execution of an Agreement and authorization to proceed with the work. For simple and typical projects, the scope of services can be determined in one meeting whereas more complex jobs may require multiple meetings to delineate the scope of work. The initial scope of services meeting is specified in the project advertisement in the Professional Transportation Bulletin.

The representative of the district, or other user agency, chairs the meeting, records attendance, distributes data, and informs the Consultant to keep minutes of the meeting and furnish the

minutes to those in attendance. The chairperson furnishes the Consultant and Subconsultants with the following items:

- Standard Agreement Provisions for Consultant Services (SAPCS), see IDOT's internet site;
- Architectural and Engineering Report and Negotiation Guidelines for Engineering Agreements and Supplements, see BDE Procedure Memorandum 10-04 (see the Forms Management Site for the latest BDE 17-09 form); and
- Quality Assurance/Quality Control Guidelines, see Section 8-6.

The district or bureau is responsible for preparing and emailing the scope of work and schedule to the Agreements Unit Chief in BDE.

The chairperson answers questions about the SAPCS and discusses Equal Employment Opportunity and Affirmative Action Plan requirements. The Consultant is asked to review the Architectural and Engineering Report and Negotiation Guidelines for Engineering Agreements and Supplements and to be prepared to answer the questions in the report.

Final scope details may be completed in subsequent negotiation meetings.

The chairperson explains, in detail, the method of reimbursement. The chairperson also informs the Consultant if a Start-up Agreement will be requested from the central office and/or if this project will be under "no" review or "limited" review by the Department. The Consultant is instructed to review all the material furnished at the scope of services meeting and prepare man-hours, average hourly rates, and direct non-salary costs for the project. Subsequently, the Consultant submits, on Department forms or facsimiles, the Cost Estimate of Consultant Services (CECS), Average Hourly Payroll Rates, and an itemized listing of non-salary direct costs. The chairperson urges the Consultant to submit to BDE their payroll rates and direct costs, and each Subconsultants' payroll rates and direct costs, to facilitate the Agreement process. The Consultant also includes in its submittal those same items for all Subconsultants that are to be used on the project.

### **8-3.02(b) Scope of Work**

A well-defined scope of services facilitates the negotiation process. The better the understanding of the scope of services between the Consultant and the Department, the easier it is to develop a fee that is acceptable and reasonable to both parties. It is vital that all parties become familiar with the project. To this end, a preliminary engineering information package containing all the pertinent project information is mailed overnight by the district to the selected Consultant immediately after selection notification allowing the Consultant and the Subconsultants to be active participants during this phase. The final negotiated scope, by law, must fall within the advertised scope for the project. However, the negotiated scope does not need to be as all-inclusive as the advertised scope.

The overall scope of work is described and the schedule of completion is discussed, on which general agreement is reached for these items. The Consultant is notified if the work will proceed using “no” review or “limited” review process. The Consultant is reminded of the Department’s policy concerning Quality Assurance/Quality Control (QA/QC), is asked to submit a project specific QA/QC plan for review and approval, and to include specific hours for QA/QC in his/her proposal. Also included in the Consultant package for Phase II work are specified hours for consultation during Phase III of the project. The Consultant is furnished preliminary information pertinent to the work, such as:

- Phase I study reports,
- environmental documents,
- aerial photography,
- mapping studies,
- traffic data,
- survey data,
- old plans, and
- samples of final product format.

### **8-3.03     Methods of Compensation**

The following are the methods of compensation used by the Department:

- direct labor multiple (DLM), only used when supplementing existing DLM contracts;
- cost plus fixed fee (CPFF);
- unit of work; and
- specific hourly rates.

The Contract shall specify a maximum amount payable for direct labor, for direct costs, and a total contract amount, none of which shall be exceeded unless adjusted by a Supplemental Agreement. The method of compensation for work by a Subconsultant is the same as the Prime Consultant’s method of compensation.

#### **8-3.03(a)     Direct Labor Multiple (DLM)**

This method of payment compensates the Consultant for actual direct costs plus a specified multiplier of 2.8. The multiplier is adjusted based upon the complexity factor for the project.

R = Complexity Factor: 0.00, 0.003 or 0.008

**8-3.03(b) Cost Plus Fixed Fee (CPFF)**

This method of payment compensates the Consultant for actual payroll, overhead & fringe benefits, and direct costs plus a fixed fee. Use this method of compensation for work involving aerial mapping, geotechnical engineering, special waste, or asbestos abatement; Federally funded projects; and on all project specific Agreements.

R = Complexity Factor: 0.00, 0.035 or 0.07

Compensation = DL + DC + OH + FF

DL = Direct Labor

DC = Direct Cost

OH = Overhead & Fringe Benefits Rate

SubDL = Subconsultant Direct Labor

Prime Consultant Fixed Fee formula:  $(0.37 + R) DL + \%SubDL$

%SubDL is: 1 to 2 Subconsultants = 10% of direct labor of Subconsultants

%SubDL is: 2 to 4 Subconsultants = 12% of direct labor of Subconsultant

%SubDL is: 5 or more Subconsultants = 15% of direct labor of Subconsultants

Subconsultant Fixed Fee formula:  $(0.37 + R)SubDL$

**8-3.03(c) Unit of Work**

Unit of work involves compensating the Consultant in units such as "each" or "feet." Rates are established in the Agreement and include all costs including profit. The unit-of-work method of payment often is used for geotechnical, thermographic, ground penetrating radar, subsurface utility, and special waste contracts.

**8-3.04 Negotiations**

The negotiation meeting is one of the most important steps to the success of the project. It is vital that all parties become familiar with the project and come prepared to participate in the meeting. The project team for both the Department and the Consultant, including Subconsultants, should be active participants in this phase.

The end result of the negotiation process should be a well thought out and clearly documented understanding of the anticipated project scope and level of effort. The Department and the Consultant's representatives (i.e., individuals with the authority to modify original man-hour estimates) will negotiate to clarify the extent of the effort involved in completing various work



tasks. For a work order Agreement, each work order is to be negotiated similar to a project-specific Agreement. To be successful, it is essential that the Department's representatives prepare an independent man-hour estimate prior to advertising the project and provide to the Consultant immediately after notification of selection the "Consultant Scoping and Negotiation Check Sheets" for the project.

The negotiations should culminate with agreement on the following items:

- scope of work,
- project schedule,
- man-hours required,
- direct costs,
- QA/QC plan,
- QA/QC hours specified,
- Phase III hours in Phase II projects, and
- each of the above items for any Subconsultant.

### **8-3.05 Cost Proposal Packages**

After negotiations have been completed, the Consultant will submit the proposal to the district/bureau. Instructions and forms for preparing the proposal are available on the Department's Consultant Services Share-point site. The district/bureau will verify that the proposal is consistent with the negotiations, BDE Procedure Memorandum 10-04 is complete (see the Forms Management Site for the latest BDE 17-09 form), and the proper CECS forms were used; and then submit the proper number of copies to the Agreements Unit for further processing. The proposal package contains the following items for the appropriate type of project:

1. Prime Agreement Proposal Package. This will consist of the following:

- district's Independent Man-hour and Direct Cost Estimate,\* separate from the A/A-1 Form;
- draft Scope of Work with schedule (bar chart)\*;
- BDE Procedure Memorandum 17-xx;
- Negotiation Meeting Minutes;
- Cost Estimate Of Consulting Services (CECS), including QA/QC and Phase III hours/costs broken out;
- average hourly rates (item/overall);
- approved QA/QC Plan;
- Consultant Employee Utilization Form (EEO 1981);
- EEO/AA/Title VI Section Form (BDE 2350);
- direct costs (BDE 436);
- Consultant Agreement Approval Sheet\*, if applicable;
- Consultant Scoping and Negotiation Check Sheets; and
- CAAS-DD – for costs that exceed 10% of the estimate given to the CSC.

\* E-mailed to the Agreements Unit Chief in the Bureau of Design and Environment.

2. Subconsultant Agreement Package. This will include the following:

- draft Subconsultant Agreement,\*\*
- Cost Estimate Of Consulting Services (CECS),
- average hourly rates (item/overall),
- approved QA/QC Plan,
- Consultant Employee Utilization Form (EEO 1981),
- EEO/AA/Title VI Section Form (BDE 2350), and
- direct costs (BDE 436).

\*\*Approved Subconsultant Agreement must be posted on the Vendor Documents site with the Subconsultant disclosure forms prior to the Prime Consultants' authorization to proceed.

3. Various/Various Prime Agreement Package. This will include the following:

- draft Scope of Work,
- BDE Procedure Memorandum 17-xx,
- Negotiation Meeting Minutes,
- approved QA/QC Plan,
- Consultant Employee Utilization Form (EEO 1981),
- EEO/AA/Title VI Section Form (BDE 2350), and
- direct costs (BDE 436).

Three copies of the completed proposal package should be submitted.

The appropriate areas in the central office are transmitted copies by BDE. The district/bureau memorandum transmitting the proposal packages to the Agreements Unit shall clearly state concurrence and recommendations. For Prime Agreements that exceed the estimated fee by more than 10%, the transmittal package is to include a Consultant Agreement Approval Sheet (CAAS-DD) stating reasons for the cost overrun with costs and man-hours for each reason.

### **8-3.06 Agreement Processing**

Upon receipt of the proposal package from the district/bureau, BDE conducts the following steps:

- Send all rates and/or direct costs not previously submitted to the Agreements Unit for review.
- The program numbers are verified through the Office of Planning and Programming (OP&P).

- Federal authorization is requested from the BDE Program Support Unit for projects that will be Federally funded.
- Extensions and escalations are completed.
- Send the Preliminary Engineering Approval Record (PEAR) sheet, which contains the scope of work, man-hours, and schedule, to the appropriate areas within the central office for concurrence, if applicable.
- Ensure QA/QC hours of all projects and Phase III hours in a Phase II Contract are broken out separately.
- Ensure the Consultant disclosure information and insurance requirements are current, complete, and approved.
- Secure the procurement waiver.

The Agreements Unit reviews and makes any needed modifications to the Agreement after receiving input from interested offices of the Department.

The Agreements Unit submits contract information to the PPB.

The Agreements Unit resolves any audit findings. This may involve discussions with the district/bureau and the Consultant. After all audit issues, scoping issues, and extension and escalation issues have been mutually resolved, the Agreement will be sent to the Consultant for signature. The Consultant reviews the Agreement, signs the Agreement but does not date the Agreement, and returns all copies to BDE. BDE obtains the appropriate signature(s) on behalf of the Department. The Agreement Managers verbally authorize the Consultant to proceed with the work for Phase I and Phase II projects and electronically notify the district for Phase III projects. The district/bureau will be informed that the Consultant was authorized to proceed. A fully executed copy is sent to the Consultant and district/bureau. An original copy is placed on file in BDE. The district/bureau will receive a copy of the Agreement and an approved Contract Obligation Document (COD). Work done prior to Department authorization is not eligible for reimbursement.

### **8-3.07 Funding Approvals and Federal Authorizations**

The procurement procedures as described in this Section will be used for all A/E Consultant Agreements except for those applications for major architectural services. Major architectural services are currently provided through the Capital Development Board.

Upon receipt of a proposal package from the district/bureau, the Agreements Unit requests verification of the program code number and the type of funds (State or Federal) from OP&P.

When Federal funds are to be used, the Agreement Manager requests the BDE Program Support Unit (PSU) to obtain Federal authorization. The PSU requests FHWA's authority to proceed with the work. Once authorization is received, a copy of this request and the FHWA authorization furnished by the PSU is included in the project file. Work done prior to FHWA authorization is not eligible for Federal participation.

Compliance with all aspects of 23 CFR Part 172 and OMB Circular No. A-102 is required and shall be documented. Lead-time of three weeks is estimated for obtaining FHWA authority to proceed, provided the district/bureau has submitted prerequisite programming material (OMB Standard Form 424).

### **8-3.08 Cost Approvals**

When the selected Consultant is notified of their selection, current payroll by employee and classification, hourly rates, raise schedule, and any direct costs are requested from the Consultant. These are required to be sent to BDE within 10 days after selection. The Agreement Manager discusses any differences with the escalations and extensions with the Consultant, and the district/bureau, until consensus is reached.

Delays in sending wage rates and direct costs to BDE results in a delay in processing the Agreement.

After the Agreement is executed, a COD form is prepared by the Agreements Unit and submitted to the BoBS for approval. A copy of the Agreement is attached to the COD form for BoBS submittal to the State Comptroller. Funds, by law, shall be obligated and the Agreement filed with the State Comptroller within 30 days of the date of the Agreement.

If the 30-day deadline is not met, a late filing affidavit must be completed.

On projects using bond funds, the funds shall be released by BBFM. A request memorandum is prepared by the PSU listing such projects. The PSU then notifies the Agreements Unit when the bond funds are released.

The OQC is also responsible for performing a final audit on completed projects. The administering district/bureau should request that the appropriate audit be made at the time the Consultant's final invoice is submitted for payment.

### **8-3.09 Signature Authority**

Every Contract must contain the Secretary's signature. A card must be on file with the Comptroller for the person with signature authority. The Secretary of Transportation has delegated signatures for Consultant Agreements. Start-up Agreements (see Section 8-3.11(a)) and District Letter Form Supplemental Agreements may be signed by the Regional Engineer. Each of these Agreements have a line for the Secretary of Transportation's signature (signed by the Regional Engineer) followed by a line for the Regional Engineer's signature.

**8-3.10    Authority to Proceed****8-3.10(a)    Letter of Authorization**

A Letter of Authorization, signed by the appropriate Central Office bureau chief, or designee, is sent to the Consultant by BDE. A “bluebacked” original of the fully executed Agreement is attached. Copies of the Letter of Authorization are sent to the administering district/bureau and the BDE file with:

- the Agreement;
- an approved COD Form, transmitted separately; and
- the FHWA authorization, if Federal funds are utilized, transmitted separately.

No payments are to be made to the Consultant until proper Certificates of Insurance are received by BDE.

Prior to issuance of the Letter of Authorization, the Agreements Unit reviews the entire file and ensures that all required clearances for authorization (e.g., by the FHWA, BBFM (bond funds), design approval or risk management approval, notification of the administering district/bureau) have been obtained.

**8-3.10(b)    Risk Management**

Authorization to proceed for projects including contract plans (Phase II) is possible without design approval if risk management is approved by BDE. For a project to be considered for risk management, the public involvement process shall be completed, the draft Phase I report shall have been reviewed by the BDE staff, and no Federal funds are used for the engineering. The district must request risk management from BDE. Authorization request for a Start-up Agreement does not include risk management approval.

**8-3.10(c)    After Authorization**

When the work is authorized, the liaison manager reaches agreement with the Consultant on the procedure for work and the percentages of total project for the line items of work to be shown on the monthly progress report. It is imperative that the liaison manager ensures that the appropriate Department personnel and the Consultant are thoroughly familiar with the Agreement and the SAPCS, particularly with Sections 2.24, 2.32, 2.37, and 2.4, because improper procedures under these sections of the SAPCS may preclude payment to the Consultant.

### **8-3.11    Early Authorization To Proceed**

#### **8-3.11(a)    Start-Up Agreement**

At the option of the Regional Engineer or agency head, the Regional Engineer may authorize the Consultant to begin work by obtaining approval from BDE and signing a Start-up Agreement. The Start-up Agreement is available on all non-Federally funded projects.

Immediately after the final negotiation meeting, the district completes and e-mails a Start-up Agreement request memorandum to BDE. On Phase II projects where the district requests risk management, the risk management request is attached to the Start-up Agreement request. Approval or denial for the Start-up Agreement is e-mailed to the district from BDE within 3 working days of receipt of request. The district works with the Office of Planning and Programming to secure approval of additional funds and the program number for any amount over the programmed amount.

The Start-Up Agreement request will not be granted if the disclosures for the Prime and Subconsultants were not submitted and approved. The procurement waiver must be received before BDE will forward the request to the Assistant Chief Engineer for approval. Approval of the request for a Start-up Agreement does not include approval of risk management. A separate request must be submitted to BDE for risk management.

The district, upon receiving approval from BDE and a complete proposal package from the Consultant, enters into an Agreement with the Consultant using the Start-up Agreement template. The Agreement amount may be for no more than \$249,999 or 40% of the Prime Agreement amount, whichever is less. The Consultant signs the 3 copies of the Agreement first, then the Regional Engineer signs and dates all 3 copies and at that time authorizes the Consultant to begin work. The Consultant may then work up to the Start-up Agreement amount.

The district sends a copy of the fully executed Start-up Agreement to the Preliminary Engineering Section with the completed proposal package within 1 week of signing the Start-up Agreement authorization. Failure to do so might result in a late filing affidavit by the district and delay processing the proposal package.

Upon receipt of the Start-up Agreement and the completed proposal package, the Preliminary Engineering Section develops the COD for the Start-up Agreement and proceeds with processing the complete proposal package.

Once the Prime Agreement is executed, it supersedes and includes costs stated in the Start-up Agreement. The Consultant may start, complete, and invoice for the work as specified in the Start-up Agreement. No other work may be started until the Prime Agreement has been executed, and the Consultant authorized.

No supplements may be written on the Start-up Agreement. The Consultant may not invoice for work until the COD is approved. The Preliminary Engineering Section tracks the Start-up Agreement through their database. Copies of the Start-up Agreement template and request

memorandum for the Start-up Agreement are on IDOT's Consultant Engineering Share-point site.





## **8-4 AGREEMENT ADMINISTRATION AND ADJUSTMENT**

### **8-4.01 General**

Administration of the Agreement is the responsibility of the agency (district/bureau) requesting use of a Consultant. The district/bureau is responsible for monitoring the execution and progress of the work.

A liaison manager is assigned and all work, preliminary or completed, and all project correspondence are channeled through the liaison manager. Invoices and progress reports are received and reviewed by the liaison manager. Certificates of Insurance showing that the Consultant has insurance as required by the SAPCS shall be on file in BDE. A report listing Consultants with the prescribed insurance is sent by BDE to the districts/bureaus monthly.

The liaison manager is the Department's contact with the Consultant. The liaison manager ensures any changes are negotiated in accordance with the terms of the Agreement and the files are properly documented for all verbal instructions. The liaison manager is also responsible for documenting the Consultant's performance throughout the project and provides the Consultant Performance Evaluation.

### **8-4.02 Subcontracts by Consulting Engineering Firms**

The SAPCS provides that the Department can utilize prequalified Subconsultants upon approval. Approval will be by the Bureau Chief of BDE. A copy of the fully executed subcontract is furnished to BDE before any work is authorized and clearly defines the scope of work, the schedule of completion, and the payment basis. To facilitate review of subcontracts and to standardize the routine provisions that are included in them, see the Prime Subconsultant Agreement and Supplemental Subconsultant Agreement templates located on IDOT's internet Site. Any Subconsultant Agreement not using the Department's template is required to be sent to the Office of the Chief Council for review and approval prior to authorizing the Subconsultant's work. The following items provide additional guidance on subcontracts by Consultants:

1. Individual Professionals and Nonprofessional Work. All subcontracted work by professional Consultants requires negotiation of a subcontract. This does not apply to individual professionals that are on a retainer basis to the Prime Consultant; nor does it apply to nonprofessional work, which shall be obtained by competitive bidding.
2. Supplemental Agreements and Profit. If the scope of work in the Prime Agreement does not include the proposed subcontract work deemed necessary by the district, the Prime compensation and scope of the Prime Agreement is modified by a Supplemental Agreement to include the subcontract work. If the Prime Agreement has a fixed fee for profit that includes profit on items later proposed to be subcontracted, the Prime Agreement shall be modified to exclude profit to the Prime Consultant on subcontracted items (i.e., no double profit).

3. Fee Estimates. The Subconsultant's proposal for work shall contain direct payroll, direct costs, man-hours or units of work, and supported by back-up data as required for a Prime Agreement. The proposed man-hours and direct costs will be approved by the administering district/bureau based upon its estimate of cost and submitted to the responsible central office bureau along with the Subconsultant's proposal. Payroll additive percentages used in the fee estimate shall be approved by BBFM.
4. Payment. The Consultant may bill the Department for the Subconsultant's work as the work progresses. If the method of reimbursement is lump sum or unit of work, payment will be based upon the percentage of work completed as indicated on the Progress Schedule. If the method of reimbursement is DLM or CPFF, payment is based upon the number of man-hours completed. The subcontract provides that the final payment will not be made to the Subconsultant by the Prime Consultant until an Affidavit of Completion is submitted.

### **8-4.03 Supplemental Agreements**

#### **8-4.03(a) General**

During the course of a Consultant's work on a project, occasions arise where changes in the negotiated work items are identified. The nature of these changes may be such that they can be processed using normal procedures, or they may need to be performed on an expedited basis.

All changes in schedule, negotiated scope of work, or fee under the Agreement require the Department's written authorization to the Consultant prior to implementation. The Consultant, per the Agreement, forfeits its right to claim additional compensation for added work done prior to receiving written authorization from the Department. It is the liaison manager's responsibility to ensure that any changes are negotiated, agreed to, and authorized in full accordance with the SAPCS and the terms of the Agreement. When the Consultant is notified of changes the Department finds necessary, the notice should clearly state that it is not an authorization to proceed with the changes and advise of the steps necessary to negotiate the change. When in doubt, the liaison manager contacts BDE for procedural advice.

Changes in the negotiated work are accomplished through Supplemental Agreements that include the scope of work to be accomplished, any necessary changes to the project schedule, and the manner of payment with a stated Upper Limit of Compensation.

Most Supplemental Agreements are applicable in the following situations:

- extension of time,
- corrections in Contract language,
- deletion of work,
- additional work advertised but not previously negotiated, and
- additional level of effort of previously negotiated items.

All Supplemental Agreements must have a Consultant Agreement Approval Sheet (CAAS) approved prior to execution. The CAAS states reasons for the additional cost and the man-hours for each reason. The CAAS also includes the work items involved, why it is being added, the cost for each item involved, and why the Consultant is entitled to additional compensation. When the supplemental cost has been negotiated, the Consultant Agreement Approval Sheet (CAAS) is prepared by liaison manager and signed by the Deputy Director in the central office.

The liaison is responsible for supplying the date and findings of the most recent consultant performance evaluation for the subject project for all Supplemental Agreement requests. This is required information BDE must provide to the Procurement Policy Board (PPB) prior to their approval

All Supplemental Agreements are authorized and paid for in accordance with the terms of the Agreement. Normal procedures provide three ways of modifying the Agreement. Each type of supplement contains the Secretary of Transportation's signature and may be delegated according as follows:

Figure 8-4.B summarizes the dollar and percent limitations to the various Supplemental Agreement options.

Type Of Action	Maximum Accumulative Size		Authorized By
	Amount	% of Prime	
District Letter-Form	\$0	NA	Regional Engineer
Central Office Letter-Form Supplement	\$24,999	15%	Deputy Director (Central office)
Supplement	\$249,999	No Max	Director of Highways
Supplement (\$250,000 or greater)	No Max.	No Max.	N/A (Note 1)

*Note: If the Supplemental Agreement increases the value of the Contract equal to or greater than \$250,000 in a fiscal year, the Agreement requires the signature of the Secretary of Transportation, Director of Highways, Chief Counsel, Director of Finance and Administration, and the Chief Procurement Officer. In these situations, District Letter-Form and Letter-Form Supplemental Agreements may not be used.*

#### **SUPPLEMENTAL AGREEMENT OPTIONS (Limitations and Time Required)**

**Figure 8-4.A**

These procedures are applicable as follows:

1. District Letter Form. If the Agreement provides for scope changes, the Regional Engineer may negotiate and authorize additional work provided the scope change does **not** involve an increase in dollar amount, transfers money between the consultants on the agreement, adds a year or more the completion date, nor adds a subconsultant to the agreement. A District Letter-Form Supplemental Agreement is signed by the Consultant who returns a copy to the Department for execution by the Regional Engineer. A copy of the authorization is to be sent to BDE.
2. Central Office Letter-Form Supplemental Agreements. Letter-Form Supplemental Agreements are authorized by Deputy Director in the Central Office (DD). The Consultant signs and returns to BDE. The DD then signs the Agreement for the Secretary and then as the DD. The Consultant is then authorized to proceed. Letter-Form Supplemental Agreements are applicable in the following situations:
  - partial obligations,
  - addition of direct costs not previously in agreement,
  - transfer of work between Prime Consultant and Subconsultant,
  - additional work, and
  - no Federal participation or bond funds.

A Central Office Letter-Form Supplemental Agreement is limited less than \$24,999. The cumulative total of Letter-Form Supplemental Agreements cannot exceed 15% of the Prime Agreement, or less than \$24,999, whichever is greater.

3. Supplemental Agreements. If the limitations discussed in Items 1 and 2 above are exceeded, a Supplemental Agreement with the appropriate Department signature(s) shall be used. All procedures for estimates, review, and approval that apply to Prime Agreements also apply to Supplemental Agreements. The liaison manager through man-hour and non-salary direct cost approval will implement negotiation of the Supplemental Agreement. The following information is then submitted to BDE:
  - Cover memo/transmittal memo
  - draft Scope of Work with schedule (bar chart);
  - BDE Procedure Memorandum 17-xx;
  - Negotiation Meeting Minutes;
  - Cost Estimate Of Consulting Services (CECS);
  - Revised QC/QA Plan, if applicable; and
  - Direct costs
  - CAAS.

BDE obtains fee approval, finalizes the Supplemental Agreement, and obtains FHWA approval, if required, executes the agreement and notifies the district the consultant may be authorized to begin work.

**8-4.03(b) Early Authorization To Proceed – Prior Approval**

The Consultant may be authorized to work on items outside of the negotiated scope once that work is identified and agreed to by all parties through a Prior Approval. A written prior approval allows the Consultant to begin the additional work; however, the Consultant may not invoice for the increased work until the Supplemental Agreement has been authorized.

Once the need and extent of the additional work is identified and within the advertised scope of the project by the Department, and negotiations with the Consultant begun, the appropriate Department personnel authorizes, by Prior Approval Authorization Letter, the Consultant to proceed with the work up to a specific dollar amount. This Prior Approval Letter outlines the additional work being authorized and the amount being authorized. A signed copy of the letter is sent to BDE. Prior Approval is intended to keep the work going to meet the project's schedule. Supplemental Agreement negotiations should be finalized quickly.

The Prior Approval authorization process only establishes limits for continued work while the Supplemental Agreement is being negotiated and processed. Any additional funding required for the supplemental work must be secured by the district through OP&P.

Once the negotiations for the supplemental agreement are complete and the CAAS is approved, a second letter called, **CAAS Approved Letter**, may raise the authorized amount. (Send a copy to BDE.) See the following chart for authorization limits. At all times, the amount authorized prior to the execution of a supplemental agreement may not exceed 40% of the anticipated supplemental agreement amount.

Only a single set of prior approval authorizations (initial letter and CAAS approved letter) may be issued per Supplemental Agreement. A subsequent set of Prior Approval authorizations cannot be issued until the previous Supplemental Agreement has been authorized. Prior Approval authorizations cannot be issued adding a Subconsultant.

Signature Required	Prior Approval Amount
Prior Approval Authorization Letter signed by Regional Engineer (maximum of 40% of the estimated supplement amount)	Up to \$50,000
CAAS Approved Letter (2 <sup>nd</sup> Letter) signed by Regional Engineer (maximum of 40% of the estimated supplement amount)	\$50,000 to \$249,999
CAAS Approved Letter after CAAS signed by Secretary (maximum of 40% of the estimated supplement amount)	Over \$249,999

**PRIOR APPROVAL AUTHORIZATION SIGNATURE AUTHORITY****Figure 8-4.B**

**8-4.04    Monitoring Consultant's Work****8-4.04(a)    Agreement Schedule**

After the work under the Agreement has been authorized, the liaison manager meets with the Consultant. They agree on detailed procedures and progress report percentages for elements of work. They also indicate on the appropriate progress report the calendar days to complete each of the various work elements, which should agree with the calendar days indicated in the Agreement Project Schedule. The date due also is indicated on the Progress Report for each work element after authority to proceed with that work element is given. All report forms and invoice forms are available to the Consultant on IDOT's internet site.

As work progresses and work elements are approved, the date due for other work elements should be indicated on the Progress Report. These dates should be revised, as needed, if the Consultant's work is stopped or placed on hold by the Department. The "Remarks" column may be used to indicate the date on which the work element was submitted.

The district's liaison manager, or other appropriate official, indicates on the Progress Report if the project is on schedule or behind schedule. If behind schedule, the reason for the delay is stated on the Progress Report; the reverse side of the form may be used if needed.

If it is determined that the work is behind schedule due to factors under the Consultant's control, this is reflected on the Consultant's Performance Evaluation Form.

If work is lagging due to no fault of the Consultant, the liaison manager should make every effort to expedite the work because the Agreement provides for fee renegotiations if completion is delayed beyond the time limits set in the Agreement. If the completion schedule is to be revised, the liaison manager has the Consultant request approval of the revised schedule. A copy of the approved schedule change is then furnished to BDE. If the work is behind schedule due to factors under the Consultant's control, the liaison manager issues written remedial instructions to a principal of the firm. If this fails to correct the problem, it may be necessary for the using agency to recommend termination of the Agreement to BDE. The liaison manager may recommend that the Agreement be terminated for other reasons in the best interest of the Department such as unsatisfactory work or change in Department priorities shifting construction time too far into the future.

**8-4.04(b)    Completion Dates**

The district liaison manager should be aware of the completion dates in the Agreement. There is a work schedule completion date and a completion date for billing purposes. If the Contract extends past the billing completion date any submitted invoices will be rejected by the Comptroller's office. The liaison manager should request a time extension from BDE prior to the schedule and/or billing dates in the Agreement. If the completion dates are passed, the district liaison manager obtains a general affidavit signed by the Consultant and completes one signed by the Regional Engineer and submits these to BDE with the extension request.

**8-4.04(c) Documentation**

The project manager maintains a complete log in the files of what was decided during all phone calls, meetings, visits, and inspections. Copies are furnished to the Consultant and, for purposes of FHWA audit and/or of documenting performance.

**8-4.04(d) Consultant Invoices**

Consultant invoices should be processed for payment only when the reported percentage of completion is approved. The liaison manager will promptly notify the Consultant if a lesser percentage should be used. Total costs in excess of the approved percentage of completion times the upper limit of compensation should not be approved for partial or final payments. When such higher costs are billed, the liaison manager determines if this is due to Consultant inefficiency and, if so, takes appropriate steps to correct the problem. If overruns are due to underestimation of the negotiated scope by the Department, the liaison manager takes steps to have the limits adjusted; see Section 8-4.03. After invoices are found reasonable, or are corrected to reasonable, and in accordance with the terms of the Agreement, the liaison manager promptly requests the BBFM make payment.

The "Guide to Reviewing Invoices" is available for IDOT employees on the Engineering Consultant Information Share-point site.

**8-4.04(e) Federal Funding**

When Federal funds are involved in the Agreement, the liaison manager will keep the FHWA representative apprised of the Consultant's work and, if the FHWA requests, arrange to conduct joint reviews of the work.

**8-4.05 Evaluation of Consultant's Performance****8-4.05(a) General**

The Department formally evaluates all work performed by Consultants. During the life of a project, the liaison manager informally evaluates a Consultant by keeping lines of communication open, and keeping the Consultant aware of any problems or concerns the Department has with its performance. Among the areas evaluated are:

- timeliness,
- completeness of product,
- plan and constructability quality,
- cooperation/management,
- quality/accuracy,
- public involvement/agency coordination, and
- innovation.

There are some Consultant errors that the Department views as significant and substantial enough to cause the project to be in jeopardy. These are “Fatal flaws” and where these Consultant errors occur, the highest final rating the project may receive is a “Satisfactory,” providing the Consultant makes corrections and improves their quality control. These errors result in an interim rating of “Substandard” or “Poor.”

Fatal Flaws are defined as:

- errors involving significant structural deficiencies or safety on bridges/structures,
- errors resulting in the Consultant failing to identify significant environmental impacts,
- errors involving substandard geometrics for the specified design criteria,
- inaccurate survey information impacting the project’s constructability,
- inappropriate behavior by the Consultant when working with the public,
- false information used by the Consultant in the report documentation, and
- adjustment of letting date or design approval due to late Consultant submittals.

The evaluation process by nature is a subjective process. Although an “Excellent” project is a goal, in practice very few projects are truly “Excellent.” An Excellent project has the following characteristics:

- The submittals contained no major errors and very few minor errors.
- The Consultant during the life of the project was self-managed (e.g., responsive to requests, minimal calls/requests on standard procedures, took lead of project).
- The Consultant was innovative (e.g., focused special resources on issues, perceived and managed problems early and effectively, innovatively used resources/technology, or posed solutions which saved the Department significant funds).
- Submissions were not only early, but allowed the Department to advance a letting or advertisement to an earlier date. Consideration will be given for an accelerated Department dictated timetable.
- The project was cost effective, safe, and considered a context-sensitive design.
- Quality presentation of products was acceptable (e.g. spelling, grammar, labeling, links).
- The Consultant maintained a consistent high-quality level of personnel throughout the life of the project.
- Complied with all Department manuals, policies, procedures, or explained exceptions with minimal prompting by the Department.
- Consistently promoted a positive Department image and minimized controversy during public involvement.



Several evaluation forms exist covering the areas of prequalification. These forms are available through the Consultant Evaluation System (CES) Data Base. Contact the Consultant Unit in BDE for access to the data base. The following are areas generally evaluated under each prequalification category. Consider the following guidelines when evaluating Consultants:

1. Timeliness.

- Exceeds – Consultant submits key items of work consistently early affording the Department the opportunity to advertise the next phase of work on an earlier bulletin.
- Meets – Consultant submits key items of work consistently on or about the time agreed to by both parties.
- Substandard – Consultant submits key items of work consistently past the time agreed to by both parties.

2. Completeness/Adequacy.

- Meets – Consistently on key items of work, the Consultant includes all items in a submittal as specified in Department manuals, policies, procedures, and the Contract documents.
- Substandard – On key items of work, the Consultant consistently fails to include all items in a submittal as specified in Department manuals, policies, procedures, and the Contract documents.

3. Quality/Accuracy.

- Exceeds – Consultant submittals contain no major errors and very few minor errors. Minimal hours are expended by Department staff in review of submittals. Presentation of material is clear, concise, and of high quality (e.g., spelling, grammar, labeling, links). The next phase of work experienced little or no major problems/questions attributable to the Consultant. The project thoroughly analyzed the major elements of the project. Maintained a high quality of work with a Department-accelerated schedule.
- Meets – Consultant submissions contain no major errors and some minor errors. Presentation of material is clear, concise, and adequate (e.g., spelling, grammar, labeling, links). The next phase of work experienced the expected problems/questions attributable to the Consultant.
- Substandard – Consultant submissions contain major and minor errors. The Consultant demonstrated low quality presentation of products (e.g., spelling, grammar, labeling, links, etc.). The next phase of work experienced problems/questions attributable to the Consultant. The Consultant showed poor understanding of the work type.

**4. Cooperation/Project Management.**

- Exceeds – Consultant was consistently available and responsive to and ahead of problems and concerns. The Consultant initiated open and timely communications with the Department. Consultant was consistently self managed.
- Meets – Consultant was available and generally responsive to problems and concerns. The Consultant initiated open and timely communications with the Department. Consultant was self managed at times.
- Substandard – Consultant was generally not available nor responsive to problems and concerns. The Consultant communications with the Department were rarely timely. Consultant continually asked the Department for clarification on standard procedures.

**5. Public/Agency Coordination.**

- Exceeds – The Consultant independently developed proactive and creative public/agency involvement techniques that both identified and effectively responded in a timely manner to minimize highly controversial issues. The Consultant managed and implemented the public relations program and presented accurate and pertinent project information to the public, news media, and coordinating agencies, which resulted in project acceptance and a positive Department image.
- Meets – The Consultant followed Departmental guidelines in performing project coordination with the public, news media, and agencies in such a manner that fulfilled all requirements and resulted in project acceptance and design approval.
- Substandard – Consultant responses were misleading, incorrect, or inflammatory at public/agency involvement meetings. Presentation material (e.g., aerial exhibits, details, tables, data, etc.) contained incorrect or conflicting information which reflected negatively on the Department or the public's acceptance of the project design features. The Consultants public/agency involvement program required an over-reliance on Department staff to correct, revise, and present project improvement/mitigation

**8-4.05(b) Interim Evaluations**

Evaluations are made for both Prime Consultants and Subconsultants at interim and final stages. Interim evaluations may be completed at any time. Scheduled interim evaluations are determined by each district. Interim evaluations are typically done on an annual basis or at deliverables dates determined at negotiations. The structural work, however, requires two interims, one at TS&L and one at prints of the final plan stage, and the final overall evaluation.

An interim evaluation accompanies a submittal when returned to the Consultant due to excessive errors/corrections.

All interim evaluations are sent to Consultants at the same time they are transmitted to BDE. The evaluations are a very important tool for both the Consultant and Department. They provide timely feedback to the Consultant concerning its performance on an active project. The interim evaluation allows the Consultant to correct any deficiencies during the life of the project, in some cases turning what would otherwise have been a bad experience for all involved, into a good one. The responsibilities for completing Consultant evaluations are documented in the following sections.

It is important to conduct interim evaluations so as not to delay processing any possible Supplemental Agreements.

#### **8-4.05(c) Final Evaluations**

After the Consultant completes the work covered in an Agreement, final evaluations are prepared by the district and/or bureau for the Consultant and Subconsultant in the appropriate categories. The Department's project manager and his/her supervisor concur and sign the final evaluation. The final evaluation is sent to the Regional Engineer or bureau chief for concurrence and signature. The final evaluation is then sent to the Consultant and transmitted electronically to the BDE Consultant Unit using the CES Data Base.

#### **8-4.05(d) Phase I Studies and Environmental Document Evaluations**

The district is solely responsible for completing interim and final evaluations of Consultants performing rehabilitation (3R) projects and Simple Environmental Assessments for Rehabilitation (3R) or Reconstruction/Major Rehabilitation (3R) projects. However, before completing interim or final evaluations of Consultants performing work on these projects, the district will obtain input from the BDE's regional field engineers. The Consultant's ratings should reflect a consensus of the district and the BDE's regional field engineers' knowledge of the Consultant's work.

Before completing interim or final evaluations of Consultants performing Phase I Studies and Environmental Assessments of Reconstruction/Major Rehabilitation (3R) and New Construction/Major Reconstruction projects, the district will obtain input from the BDE's regional field engineers and environmental project coordinators on engineering, environment, and public involvement evaluation criteria. The interim and final ratings reflect a consensus of the district and BDE's staff experience in working with the Consultant on the project being evaluated.

For interim and final evaluations of Consultants performing Phase I Studies and Environmental Impact Statements of Reconstruction/Major Rehabilitation (3R) and New Construction/Major Reconstruction projects, the BDE's environmental project coordinators will obtain input from the district on the environmental and public involvement evaluation criteria and complete these parts of the form. The form then will be sent to the district. The district also will obtain input

from the BDE's regional field engineers on the engineering evaluation criteria and complete the remainder of the form.

#### **8-4.05(e) Structure Plan Evaluations**

The performance evaluations of Consultants or Subconsultants preparing structure plans are completed by the Bureau of Bridges and Structures. An interim evaluation is completed on the TS&L plans and on prints of the final plan stage. The final overall evaluation is made after the completed drawings are submitted for letting and takes into account the two interim ratings.

In the case where the completed final plans are not placed on an immediate letting, the district is required to forward a reduced set of bridge plans (prints) to the Bureau of Bridges and Structures (BB&S). This procedure will allow the BB&S to complete its final overall evaluation of the Consultant in a timely manner.

#### **8-4.05(f) Other Evaluations to be Completed by the Districts or Central Bureau**

The interim and final performance evaluation of Consultants preparing construction plans, performing specialized studies, surveys, geotechnical engineering, construction engineering, preparing photogrammetric mapping, and other services is completed by the appropriate district personnel. These evaluators may access the CES Data Base through their computers.

#### **8-4.05(g) Final Project Evaluations**

Upon completion of all the final evaluations by the district and/or bureaus, a final project evaluation will be prepared. The final project evaluation is prepared after PE II for PE I work and after construction is complete for PE II and PE III. If the next phase is delayed more than one year, the final project evaluation should be prepared at that time.

Where the project is evaluated by more than one department evaluating entity (e.g., BB&S, Environment), the final evaluations are transmitted to BDE by the Regional Engineer and/or bureau chief with the ratings incorporated from the applicable entity.

#### **8-4.05(h) Consultant Selection Committee**

Performance evaluations are provided to the Consultant Selection Committee as part of the preliminary review and rating information. A five-year average of performance evaluations on similar types of projects is used for this purpose. The Selection Committee is also apprised of all appeals.

A listing of all evaluations of other than Satisfactory is forwarded to the Consultant Selection Committee. In addition, a listing of all evaluations of Good or Excellent (final) are forwarded to the Consultant Selection Committee. The Consultant Selection Committee considers this information when deliberating at the selection meetings.

**8-4.05(i) Below Satisfactory Interim Evaluations**

Where a below satisfactory rating is received on an interim evaluation: A Substandard or Poor rating can be removed based on any of the following conditions:

- Five years has elapsed since the interim evaluation of Substandard in a particular category.
- A subsequent interim evaluation on the same project in the same category is satisfactory or better.
- The Consultant meets with the district and/or the central office bureau that made the Substandard or Poor evaluation and the evaluation for the project is upgraded to satisfactory. This condition involves situations where there has been a misunderstanding between the Department's evaluator and the Consultant.
- The Consultant demonstrates to the district and/or the central office bureau that corrective measures have been taken to correct the less than satisfactory performance. Under this condition, the evaluations will not be removed but marked with an asterisk to indicate that corrective measures have been implemented by the Consultant to the satisfaction of the district and/or the central office.

**8-4.05(j) Below Satisfactory Final Evaluations**

A final evaluation of Poor results in suspension from submitting a Statement of Interest in the evaluated category and any higher level category in the same work type for a period of the next eight PTB's or two years, whichever is greater, as a Prime or Subconsultant. At the end of this period, the Consultant must request reinstatement to the suspended category. This will require documentation of the efforts and success in correcting the issues which led to the Poor evaluation.

If a second final evaluation of Poor occurs in the same category within five years, it will result in loss of prequalification in that category for five years. At the end of this period, the Consultant must request reinstatement of prequalification in that category. This will require documentation that the issues which led to the subject evaluations have been rectified.

A final evaluation of Substandard results in suspension from submitting a Statement of Interest in the evaluated category and any higher level category in the same work type for a period of the next two PTB's or six months, whichever is greater, as a Prime or Subconsultant. At the end of this period, the Consultant must request reinstatement to the suspended category. This will require documentation of the efforts and success in correcting the issues which led to the Substandard evaluation.

If a second final evaluation of Substandard occurs in the same category within five years, it will result in loss of prequalification in that category for one year. At the end of this period, the

Consultant must request reinstatement of prequalification in that category. This will require documentation that the issues which led to the subject evaluations have been rectified.

#### **8-4.05(k) Final Plan Adequacy Evaluations**

When a Consultant does any part of a Phase II project, a final Plan/Design Adequacy Evaluation should be weighted at 90% completion of the construction of the project. A Plan Adequacy rating of Poor or Substandard has the same consequences as the less than satisfactory evaluations for Phases I, II, and/or III.

#### **8-4.05(l) Consultant Appeal Process of Final Evaluation**

After receipt of the final evaluation, the Consultant has 30 days in which to appeal a Substandard or Poor evaluation. The appeal is submitted in writing to the Department entity that prepared the final evaluation (e.g., Regional Engineer, Bureau of Design and Environment, Bureaus of Bridges and Structures). The appeal will clearly state the basis for the appeal and any supporting documentation shall be attached.

If the Consultant is not satisfied with the results of the appeal, the Consultant may request in writing, within 14 days, a review by the Deputy Directory of Highways. The Deputy Director will review the documentation file, the evaluation, and meet with the Consultant and the Departmental entities involved.

If the Consultant is not satisfied with the results after meeting with the Deputy Director of Highways, the Consultant may file a written appeal with the Directory of Highways within 14 days of final action by the Deputy Directory of Highways. The appeal shall state specifically the basis of the appeal and the reason(s) the Consultant disagrees with the Deputy Director's decision. No new issues may be raised. The Director of Highways will review the information submitted in the appeal. The Director may request a meeting with the Consultant. The Consultant will be notified in writing of the Director's decision which is final.

#### **8-4.06 Completion and Termination Procedures**

##### **8-4.06(a) Completion**

When any Consultant Agreement is ended, whether by completion of the work or by termination procedures stipulated in the Agreement, copies of the final voucher request, request for audit, Affidavit of Completion, and the final invoice with all its attached documentation is submitted by the administering agency to BDE. Also, include the final Consultant Performance Evaluations, see Section 8-4.05, for the Prime Consultant and all Subconsultants working in prequalification categories.

Upon receipt of a final audit, the district/bureau prepares a Current Obligations Document (COD) deobligating excess funds for jobs that have reduced costs. The COD is submitted to OQC with a copy to the Agreements Unit. This completes the closeout procedures for projects,

which are not programmed for Federal fund participation. If the final audit recommends increasing the Agreement amount, a COD is prepared by BDE.

The district/bureau must submit the following additional documentation to the BBFM for all programmed Federal-aid projects when completed (after final costs are confirmed by the BBFM audit):

- the date all work was completed or the Agreement was terminated;
- a list of all authorization dates from the FHWA, for work authorized on the project, to verify that it is participating;
- a list of all construction sections under the specific preliminary engineering Agreement. In the event the Agreement is for work other than construction plans, the type of work should be listed and its acceptance verified (e.g., “the report was approved by \_\_\_\_\_ (name) \_\_\_\_\_ on ( \_\_\_\_\_ (date) \_\_\_\_\_),” or “the Soils Committee approved the soils report on ( \_\_\_\_\_ (date) \_\_\_\_\_)”; and
- method of payment stipulated in the Agreement. Note all the methods and areas of application if several methods of payment are used.

#### **8-4.06(b) Termination**

If an administering district/bureau desires to terminate an Agreement, a memorandum recommending termination will be submitted to the BDE. The memorandum will include:

- the reasons for recommending termination,
- the percentage of work completed,
- the percentage of fee expended, and
- an estimate of the cost and time required to complete the work, if applicable.

BDE will send the termination request to the Secretary. Upon notification by BDE that the Secretary has concurred with termination, the administering district/bureau will notify the Consultant in writing.

#### **8-4.07 Reassignment of Vested Interest in an Agreement to Another Consultant**

Occasionally, it is necessary to assign a existing Agreement to another Consultant because of an ownership or organizational change (e.g., dissolution of the firm, death of a principal, absorption of the firm by corporate expansion, a partnership change). The existing Agreement is kept in force by an Assignment to the new legal entity.

The Assignment Agreement is a legal document that transfers all rights, obligations, and interests in the Agreement from the original Consultant (the assignor) to the new Consultant (the assignee). It must be properly executed in triplicate by the assignor and the assignee and then submitted to IDOT for acceptance and signature. A copy of the Assignment is returned to the

assignor and assignee when fully executed. BDE Form 2364, on the IDOT's internet site, may be used as a guide in determining whether the Assignment contains the essential elements.

If there is no ownership or management change and the change is only related to name, address, absorbing another firm, or adding personnel to the firm which is party to the Agreement, a notice of the Assignment, authorization to make payment to the new Consultant, and release of obligation executed by the assignor is sufficient to continue the Agreement work and payments.

The Agreements Unit makes distribution of information on the reassignment of a Consultant to the affected district/bureau and BoBS.



## 8-5 CLAIMS

### 8-5.01 Damage Due to Consultant Errors and/or Omissions

By Contract, a Consultant is responsible for damages incurred by the Department as a result of the Consultant's errors and/or omissions. However when the Department believes a fair and equitable price for an omission is obtained from the Contractor and the cost would have normally been incurred by the nature of the contract, the Consultant typically is not charged damages for their omissions.

#### 8-5.01(a) Errors By Phase I Consultant Discovered During Phase II

The district/bureau will notify the Agreements Unit if errors in the Phase I work have occurred that will result in additional cost. The notification should describe the situation, the corrective measures that result, and the amount of the Consultant's liability. If the district/bureau deems it practical, the Consultant responsible for the error may be given the opportunity to assist in making the corrections to reduce his/her financial liability.

#### 8-5.01(b) Errors By Phase II or Phase III Consultant Discovered During Construction

When an error or omission is found resulting in damages to the Department and is believed to be caused by the Consultant, the district's Bureau of Project Implementation or the bureau chief responsible for the phase of work where the error was discovered first determines if time is critical and then:

1. Where Time is Not Critical. Notify the Program Development Engineer or the appropriate Department office immediately. The Department's Consultant Manager notifies the Consultant firm of the error or omission either by e-mail, fax, or mail. The Consultant is given an opportunity to be involved in the resolution of the error or omission along with the timetable involved. After the investigation, if the error or omission is determined not to be the Consultant's responsibility, the firm may submit an invoice for the hours used during the investigation. The fact that the Consultant provided assistance in the resolution of the error or omission will not be construed as either absolving the Consultant of the firm's portion of the damages or implying the Consultant's responsibility for the damages.
2. Where Time is Critical. Notify the Program Development Engineer or the appropriate Department office of the error and also identify the steps that were taken to remedy the error. If the Department determines the error is the Consultant firm's responsibility, the Department's Consultant Manager notifies the Consultant firm of the error and the remedy by e-mail, fax, or mail.

The initial notification to the Consultant firm includes: (1) the nature of the error or omission, (2) the action sought from the Consultant, if any, and (3) the time constraints required for the response or the solution recommended for implementation. The extent of liability for the error

may be determined at a later time and is not included in the initial notification. A copy of the notification is sent to BDE.

The Bureau of Project Implementation corrects the error or omission and submits the contractor's authorization (BC 22) to the central office Bureau of Construction. The BC 22 should provide detailed information on the cost to correct the error or omission and a memorandum from the district Bureau of Program Development that indicates that the Consultant is responsible for the error or omission. The Bureau of Construction then forwards a copy of the BC 22 and all documentation to BDE and indicates the amount to be billed to the Consultant.

#### **8-5.01(c) Notifying Consultant of the Cost of the Errors or Omissions**

The Agreements Unit in BDE will notify the Consultant of the amount and extent of liability of the Consultant resulting from the errors and/or omissions. The Consultant will be given 30 days to respond to the notification indicating either their agreement that they are responsible for the claim or their intent to appeal the claim. A Consultant may request an extension of that 30 days for more complex situations so there is sufficient time to investigate the matter. If the Consultant agrees that they are responsible for the claim, an invoice will be sent to the firm as set forth in Section 8-5.01(f). If the Consultant does not agree that they are responsible either totally or partially, follow the dispute resolution process in Section 8-5.01(e).

#### **8-5.01(d) Errors and Omissions Threshold (EOT)**

In recognition that the Department is not seeking a level of effort required to produce a perfect product and in order to reduce the time and expense for both the Department and the Consultant in processing claims for minor dollar amounts, an EOT will be used. Claims for damages involving errors and/or omissions are not to be billed to the Consultant unless the damages exceed the EOT Amounts shown in Figure 8-5. Errors and omissions are defined in the Standard Agreement Provisions for Consultant Services along with the EOT amounts.

<b>Construction Contract Award Amount</b>	<b>EOT Amount</b>
\$2,000,000 or less	\$20,000
Over \$2,000,000 to \$10,000,000	1% of Contract
Over \$10,000,000	\$100,000

**Error and Omissions Threshold (EOT)**

**Figure 8-5**

Where a Consultant designed multiple projects under one Contract, there will be a separate EOT for each project (e.g., one Phase I report for multiple Phase II projects, one Phase II Contract for multiple construction contracts).

#### **8-5.01(e) Dispute Resolution**

The Department and the Consultant agree to work together on a basis of good faith and fair dealings. When a dispute arises concerning damages caused by errors or omissions, the Consultant may choose to appeal according to the following requirements. The fact that the Consultant provided assistance in the resolution of the problem will not be construed as absolving the Consultant of his/her portion of the damages.

If the appeal, after consideration by the Department, is found to have merit, an equitable adjustment is made. If the Department finds the appeal to be without merit, no adjustment to the damages due by the Consultant is made.

All appeals are to be submitted in writing no later than six months after notification of the damages by the Department.

All appeals are first submitted to the Regional Engineer. The Consultant may request an opportunity to present the appeal verbally at each of the following levels if the appeal is not satisfactorily resolved at the previous level:

- (1) Regional Engineer
- (2) Director of Highways/Chief Engineer
- (3) Secretary of Transportation

The Department has the option of considering other methods to resolve the dispute (e.g. Alternative Dispute Resolution).

If the Consultant and the Department cannot agree on the extent of the liability, the matter will be referred to the Bureau of Claims in the Office of Chief Council for further handling. Damage claims arising subsequent to construction will be referred to the Office of Chief Council for proper resolution.

The Secretary's written response shall be deemed a final action of the Department.

Once the appeal process has been exhausted, the district will notify BDE, clearing the way for an invoice to be sent to the Consultant. The Department will notify the firm when the Consultant will be considered delinquent if the invoice is not paid within 30 days.

#### **8-5.01(f) Obtaining Reimbursement for Consultant Errors or Omissions**

If the Consultant agrees that they are responsible for the errors and/or omissions or the dispute resolution process has been completed with a finding of Consultant responsibility, BDE will send

an invoice to the Consultant. Procedures for processing invoices and accounts receivables are contained in the *Revenue Accounting Manual* that is available on the Department's local area network (LAN) site under Resources. The "Payment Due Date" on the invoice should be 30-45 days from the date of the invoice. If payment is not received by the due date, use the collection procedures described in Chapter 4 of the *Revenue Accounting Manual*. If those procedures fail, refer the matter in writing to the Bureau of Claims in the Office of the Chief Counsel. The referral to the Bureau of Claims should include all correspondence from the appeal and collection processes.

## **8-6 QUALITY ASSURANCE QUALITY/CONTROL GUIDELINES FOR WORK BY CONSULTING ENGINEERS**

### **8-6.01 Definitions**

1. Calculations. Written documentation of assumptions, analysis, and conclusions for design of an element of a project.
2. Checklist. A list of things, names, etc., to be checked off or referred to for verifying, comparing, ordering, etc.
3. Communication. Giving or exchanging of information, signals, or message as by talk, gestures, or writing. Communication is required throughout the process, is the responsibility of everyone, and must be open.
4. Compliance. The act of following the stated quality assurance plan. An act of complying with a requirement, directive, etc.
5. Computations. Written documentation of the figuring of quantities for a project.
6. Computer Program Verification. Assurance that a computer program correctly performs the operations specified in a numerical model. Usually accomplished by comparing program results to:
  - a hand calculation,
  - an analytical solution or approximation,
  - a verified program designed to perform the same type of analysis, or
  - a comparison with a test case provided by the vendor of the program.
7. Consultant. The firm providing professional services as a party to a Standard Agreement. An expert who is called on for professional or technical advice or opinions.
8. Corrective Action. Measures taken to rectify conditions adverse to quality and, where necessary, to preclude repetition.
9. Department. The Department of Transportation of the State of Illinois.
10. Design Control. Requirement providing assurance that a design is defined, controlled, and verified.
11. Documentation. Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results.
12. Final Documents. Approved document and approved changes thereto.
13. Performance. The act of carrying out the stated objectives on a project.
14. Planning. Those activities needed to ensure that the correct people are performing the correct tasks using the correct tools in the correct sequence. The end product should be

- identified and kept in mind when performing planning activities to ensure that the end product contains the required quality.
15. Project Budget. A comprehensive description of the costs associated with all the services required of the consultant, including labor costs, direct expenses, overhead costs, and profit.
  16. Project Team. The Department's and the Consultant's staff assigned to the project with specified duties and responsibilities, participating together in a cooperative manner.
  17. Project Resources. All things available to the project team to complete the project, including people, tools, information, equipment, etc.
  18. Project Manager. The individual assigned by the Consultant to act as the liaison between the consultant and the Department in matters relating to the achievement of project requirements, including budget control, schedules, milestones, and quality objectives.
  19. Project Schedule. A comprehensive description of all significant services required of the Consultant and of all actions required of the Department and approving parties by the obligations of the Agreement, together with the durations and/or dates for performing these services and actions.
  20. Quality. Meeting valid requirements so that the product produced is suitable for its intended use (quality in fact). Providing what is expected (quality in perception).
  21. Quality Assurance. All those planned and systematic actions necessary to provide adequate confidence that a structure, system, or component will perform satisfactorily in service.
  22. Quality Assurance Manager. The individual assigned by the Consultant to have full authority and responsibility for generating, updating, monitoring, and maintaining the quality assurance program, and responsibility for verifying conformance to the QA requirements as set forth by the Department and applicable codes and standards.
  23. Quality Assurance Plan. A document describing the implementation of the Quality Assurance Program on a specific project, including organizational responsibilities, applicable procedures, and other information required to address client (contractual) quality requirements. The plan may also address any unique contractual requirements or modifications.
  24. Quality Assurance Procedures. A quality assurance document that outlines a planned and systematic action for various quality affecting activities requiring quality control.
  25. Quality Control. A system for maintaining desired standards in a product or process, especially by inspecting samples of the product.

26. QA Records. A completed document that furnishes evidence of the quality of items or activities affecting quality. A record is an authentic, official copy (or original) of a document retained to attest to past decisions, actions, or events.
27. Scope of Services. All the actions required of the Consultant to complete the obligations for the project.
28. Training. In-depth instruction provided to personnel to develop and demonstrate initial proficiency in the application of selected requirements, methods, and procedures, and to adapt to changes in technology, methods, or job responsibilities.
29. Valid Requirements. Those requirements established so that the resulting product will satisfy the customer's expectations on schedule and within planned resources.
30. Verification. The act of reviewing, inspecting, testing, checking, auditing, or otherwise determining (and documenting) whether items, processes, services, or documents conform to specified requirements. Ensuring that the project team is doing the right thing and that the work being performed, or that has been performed, is performed correctly.

#### **8-6.02    Elements of a QA/QC**

The following Sections identify the key elements that should be addressed in the QA/QC Plan.

##### **8-6.02(a)    Project Team**

This section should include a list of key personnel from in-house staff, outside consultants, and client liaison. A typical project team should include:

- project manager,
- client liaison,
- technical support staff,
- outside consultants, and
- QA/QC reviewer.

This section should also include a brief description of the key members' responsibilities.

##### **8-6.02(b)    Written Project Plan**

###### **A.    PROJECT SCOPE**

This section should include a brief description of the project and the purpose and need for the project. The matter of possible future expansion of the facilities should be considered and addressed. Identify if the project is to be done in US customary or metric units. Note if the project includes more than one contract (i.e., two or more

sections). For the majority of projects, there will be a single contract. Also note in this Section anything significantly different for this project.

#### **B. SUBCONSULTANT'S ROLE**

List and identify all Subconsultants. Delineate the scope of work and their responsibilities for each Subconsultant. Provide the Subconsultant's key project personnel and telephone numbers. Identify all deliverables with expected time frames. These deliverables can be from the Subconsultant to the consultant and, in certain instances, vice versa.

#### **C. STANDARDS AND GUIDELINES**

List all appropriate manuals and memorandums applicable to the project.

#### **D. TIME SCHEDULE**

This section should be developed with a considerable amount of thought. The success of the project can often hinge on the time schedule.

The schedule should include the estimated Agreement date, start-up meeting date, and periodic milestones. The number of milestones will likely vary considerably depending on the size and type of project. It is important that these not be minimized.

Establish deliverables with dates for submittals to various parties to the Agreement. Provide reasonable float and review times in the overall schedule.

Ensure in-house quality assurance reviews are scheduled in accordance with the various milestones and deliverables. These reviews should be scheduled several times during the project rather than as a final, comprehensive check.

Identify and schedule report phase milestones and the preliminary submittal date. Provide the startup date for preliminary design along with milestones and submittal date to IDOT.

Periodic meetings with IDOT will be required. These should be identified up-front and be coordinated with the various deliverables and the review thereof. It is recognized that these may change at various times due to circumstances. The entire time schedule is a dynamic schedule and may be reviewed and adjusted periodically.

Identify the starting date for final design along with any overlap with the preliminary design. Provide a list of periodic milestones during this stage.

#### **E. PERSON-HOUR BUDGET**

Prepare a person-hour budget by classification and broken down by work tasks. It is advisable that percent of total budget expected to be expended at various milestones be



determined. This should assist the Consultant in monitoring progress and assist in providing early alerts if there is a problem with the budget.

#### **F. RESOURCE MATERIAL**

This section should consist of a listing of pertinent information available for the project including:

- existing drawings,
- previous reports,
- soil borings,
- TS&L,
- boundary surveys, and
- easements.

#### **G. ESTIMATED CONSTRUCTION BUDGET**

This section should note the anticipated total construction cost. It is important this cost be kept in mind because if during the course of design the consultant has reason to believe the cost will be greater, the Consultant should advise IDOT. The goal is to avoid unpleasant surprises further down the road.

Identify and list cost limitations by segment, where applicable.

#### **H. SPECIAL CONDITIONS**

If the project has any special requirements and/or special construction materials requirements for a project, note them in this section.

### **8-6.02(c) Project Control**

#### **A. PROCEDURES**

Procedures for quality control are often in the form of check lists. The procedures are intended to assure completeness of the function and conformance of the project.

##### **1. Engineering and Environmental Studies/Plan Preparation.**

- a. **Scoping/Field Checks.** This procedure should itemize basic elements to be reviewed and evaluated during the initial field inspection of a project. The basic elements should include, but are not limited to:

- inspection of pavement condition,
- logical termini,
- drainage problems,
- hazards,
- existing guardrail condition,

- disabled accessibility,
- evidence of wells,
- gas pumps or storage tanks, and
- other environmental considerations.

b. **Contents of Submittals.** This procedure should provide a consistent definition of the content of the following key submittals:

- preliminary reports,
- prefinal reports,
- final reports,
- preliminary plans,
- prefinal plans, and
- final plans.

c. **Special Provision Preparation.** This procedure should define the proper preparation of a contract special provision and provide a procedural method to ensure a clearinghouse for unnecessary special provisions.

2. **Design Calculations.** Identify the procedures to be used to develop quantity calculations and proposed methods for checking the calculations.
3. **Computer Inputs/Outputs.** This procedure should define the software applications and the process for verifying results.
4. **Documentation of Directives.** This procedure should provide guidelines for consistent documentation of project decisions and directives (e.g., meeting minutes, telephone communications).
5. **Dissemination of Correspondence and Documents.** This procedure should provide guidelines for consistent dissemination of project decisions and directives.

## B. PROJECT RECORDS

The intent of this section is to specify the requirements for the preparation and maintenance of project records generated by the Project Team. The key features of these requirements are as follows:

- records are legible, identifiable, and retrievable;
- records are protected from damage or loss; and
- responsibilities for routing, maintaining, accessing, transferring, and long-term storage are specified.

Project records generated during project work activities may include, but are not limited to:

- informational records,
- field records,
- data compilation and testing records,
- data interpretation records,
- calculation and computer records,
- telephone messages, and
- draft and final reports.

The Department expects that quality records will be maintained to demonstrate achievement of the required quality and that the QA/QC plan is being followed. Pertinent Subconsultant quality records should be an element of these records.

Where agreed contractually, ensure quality records are available for review by the Department for an agreed period.

#### **8-6.03    Compliance Statements**

All Agreements will contain language that requires “statements of compliance” with the QA/QC plan that was prepared by the Consultant and approved by the Department. Statements of compliance are required on an interim basis and at the conclusion of the work. The interim statements of compliance would be required throughout the project at each major milestone. For example, a statement of compliance would be made for a typical contract plans project at the preliminary plans, pre-final plans, and tracings/final documents stages. The interim statements of compliance would be satisfied with a sentence added to the Consultant’s letter of transmittal that states the plans were prepared in compliance with the approved QA/QC plan.

The final statement of compliance will be on the Department’s form.

#### **8-6.04    Verification Process**

The Department will review selected projects to verify that the Consultant’s plan as approved by the Department has been followed. Selection of jobs to be reviewed will consider type of work, size of project, district or central bureau, and level of performance so that the results of the review will be meaningful.

The review will be conducted at the Consultant’s office. Participants would include, but not be limited to, the Consultant’s project manager, Consultant’s QA/QC manager, district/central office project manager, and representatives from the Department’s central bureaus. Generally, the review would be one-half day and would occur prior to completing the work. The firm being reviewed will be furnished questions and/or statements to assist in preparation for the review meeting. The review meeting begins with a brief overview of the QA/QC plan by the Consultant. The Department’s review team would then proceed through the questions/statements previously

furnished to the consultant. A report will be prepared by the review team and a copy will be furnished to the consultant.

The purpose of the verification process is not limited to determining if the QA/QC plan is being followed. An important outcome of the process will be to find innovative ideas that can be shared with others and to identify areas that could be modified to improve quality.

The districts or central bureaus may conduct their own verifications in addition to the formalized process described above.

In the event of non-compliance with the QA/QC plan, certain actions by the Department may occur, but it is essential that the Consultant demonstrate to the Department that corrective action has been taken to ensure future compliance. The Agreements will state that non-compliance could result in termination of the Contract and/or have an effect on the firm's prequalification status. Non-compliance that leads to less than satisfactory performance would be a consideration in the selection of firms for work in the future.